

Notice of Allowability

Application No.

10/022,365

Examiner

Brian D. Walsh

Applicant(s)

INAYAMA, TAKASHI

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/24/04.
2. ☒ The allowed claim(s) is/are 22 and 24.
3. ☒ The drawings filed on 20 December 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

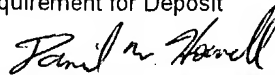
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Daniel W. Howell
Primary Examiner
Art Unit 3722

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Abraham Rosner on 14 April 2004.

The application has been amended as follows:

In claim 22, line 9, the second "and" has been deleted and replaced with --wherein W is the width of the end cutting edge; and--.

In claim 24, line 11, the second "and" has been deleted and replaced with --wherein W is the width of the end cutting edge; and--.

Allowable Subject Matter

2. Claims 22 and 24 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Numerous cutting inserts in the prior art are known to have depressions formed at or near the cutting edge in order to aid or alter chip formation. Simpson (U.S. Pat. No. 5,085,541) shows an insert generally the same size, shape and same configuration as the instant invention. It includes a depression (42) formed in the top surface that extends to the cutting edge. Simpson fails to disclose that the depression is wider and deeper at a point recessed from the cutting edge. Other references such as Kumar (U.S. Pat. No. 6,186,705) show sphere-like depressions that are

Art Unit: 3722

deeper and wider at a point recessed from the cutting edge of the cutting insert but Kumar clearly teaches away from the recited element that the width of the concave edge portion of the cutting edge (W_a) is between $\frac{1}{2}$ and $\frac{2}{3}$ the overall width of the cutting edge. In fact, Kumar teaches a plurality of these elements along the cutting edge. Petterson (U.S. Pat. No. 4,776,733) shows a depression on a cutting edge that appears to meet this limitation for W_a but the depression is clearly not spherical in nature.

The Examiner has considered Applicant's remarks and determined that since Applicant has imparted criticality to the width of the concave cutting edge portion in relation to the overall width of the cutting edge (W), it would not have been obvious to one of ordinary skill in the art at the time the invention was made to discover the relationship between W and W_a .

Furthermore, the Examiner has determined that modifying the depression of Simpson to have both a different shape and to satisfy the equation $\frac{W}{2} \leq W_a \leq \frac{2W}{3}$ would require considerable hindsight reconstruction in light of the of the instant Application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Faxing of Responses to Office Actions (UPDATED)

In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to **ALL OFFICE ACTIONS** directly into the Group at **(703) 872-9306**. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers

Art Unit: 3722

which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the Examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the Examiner.

PLEASE NOTE: the **fax number in the above paragraph has changed**. It is to be used for all responses, **including after-final communications**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 8:30 A.M. to 6:00 P.M., with every-other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW
April 16, 2004



Daniel W. Howell
Primary Examiner
Art Unit 3722